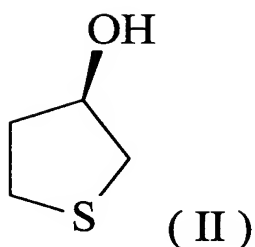
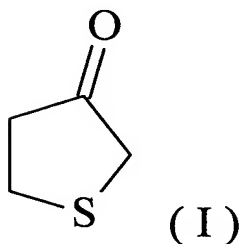


ABSTRACT

A method for manufacturing (R)-tetrahydrothiophene-3-ol denoted by formula (II):



by bioconversion of tetrahydrothiophene-3-one denoted by formula (I):



to (R)-tetrahydrothiophene-3-ol denoted by formula (II). It comprises the steps of: (A) incubating the tetrahydrothiophene-3-one denoted by formula (I) in the presence of a strain, or a preparation of a cultured cell thereof, belonging to *Penicillium*, *Aspergillus*, or *Streptomyces* that is capable of said bioconversion; and (B) collecting the (R)-tetrahydrothiophene-3-ol denoted by formula (II) from incubated solution. A method for crystallization of optically active tetrahydrothiophene-3-ol of improved optical purity, characterized by maintaining a solution comprising optically active tetrahydrothiophene-3-ol and organic solvent at equal to or lower than 1°C to cause optically active tetrahydrothiophene-3-ol to crystallize from said solution, or characterized by adding optically active tetrahydrothiophene-3-ol dropwise to organic solvent at a solution temperature of equal to or lower than 1°C to cause optically active tetrahydro thiophene-3-ol to crystallize.